<center>**Remarks**</center>

Status of application

  Claims 1-55 were finally rejected and appealed. The Board affirmed the
Examiner's rejection in a decision dated March 15, 2010. Applicant respectfully
disagrees with the Board's conclusion that the cited prior art could be combined and
adapted to re-create Applicant's claimed invention. Nevertheless, Applicant files
herewith a Request for Continued Examination and has amended the claims in order to
more particularly clarify the present invention. In the below remarks, Applicant has also
explained the differences between Applicant's claimed invention and the cited prior art.
In consideration of the amendments made and the following remarks, reexamination and
reconsideration are respectfully requested.

Prior art rejections

  Applicant's claims 1-55 were deemed unpatentable under 35 U.S.C. 103(a) as
being obvious over US Published Application 2003/0093436 to Brown et al ("Brown") in
view of US Published Application 2005/0044164 to O'Farrell et al ("O'Farrell").
Applicant has previously discussed these references in detail (e.g., in Applicant's Appeal
Brief). Although it rejected Applicant's arguments with respect to the <u>then-pending</u>
claims, the Board acknowledged that some of the argued distinctions could form the basis
of allowable claims if better reflected in the claim language (see, e.g., pages 10-11 of the
Board's Decision). To that end, the claims have been amended in an effort to adopt claim
language setting forth the argued distinctions as well as additional distinctions, which are
discussed in detail below.

  Applicant's invention creates mappings to methods of Web services and
encapsulates these mappings in proxy tables that are used to represent methods of Web
services (Applicant's specification, paragraphs [0128]-[0129]). During the creation of
these proxy tables, meta data about these mappings is also created and stored by
Applicant's system to enable the remote Web service to be located and called in response
to an operation on the proxy tables (Applicant's specification, paragraph [0091]). More
particularly, Applicant's solution <u>automatically creates</u> the mapping to the Web service
and also <u>automatically generates</u> associated mapping meta data that is stored for

subsequent use when operations on proxy tables representing the Web service are performed. As the Board noted at page 10 of its Decision there is no specific claim limitation of "automatically" creating proxy tables and mappings to represent the web services in Applicant's then-pending claims. Accordingly, Applicant has amended its claims to specifically provide that the proxy tables representing methods of the web service are automatically created and the associated mapping meta data is automatically generated. For instance, Applicant's amended claim 1 includes the following claim limitations:

> A method for performing database operations on data obtained from a web service, the method comprising:
> **creating at least one proxy table in a database,** each proxy table mapping to a method of the web service, **wherein said at least one proxy table is <u>automatically created</u> based on a Web Services Description Language (WSDL) description of the web service;**
> <u>**automatically generating**</u> **meta data about the mapping and storing the meta data in a database table of the database;**

> (Applicant's amended claim 1, emphasis added)

Thus, Applicant's claimed invention automatically generates the proxy table and associated mapping meta data to represent a remote Web service in the database system. In response to the end user inputting the name of a Web Services Description Language (WSDL) file of the web service, Applicant's system retrieves the specified WSDL file, parses the WSDL file and creates proxy tables representing the remote service (see e.g., Applicant's specification paragraph [0056] and paragraphs [0073]-[0076]; see also, e.g., paragraphs [0101]-[0117]). Applicant's invention also automatically generates meta data mapping to particular methods of the web service that are used when the method associated with a particular proxy table is called (see e.g., Applicant's specification paragraphs [0101]-[0117]). Applicant has also amended certain of its dependent claims to specifically include claim limitations of creating the proxy table in response to user input of the name of a WSDL file of the web service, thereby making it even more clear that Applicant's claimed invention automates the process of representing the Web service in the database system. For example, Applicant's claim 4 includes the following claim limitations:

The method of claim 3, wherein said creating step includes automatically creating said at least one proxy table in response to user input of a WSDL file name of the web service.

(Applicant's amended claim 4)

In contrast to Applicant's invention, which automatically creates the proxy table and automatically generates mapping meta data, Brown's system relies on a user-specified mapping file (DADx file) that is received as input (see e.g., Brown, paragraph [0045]). Additionally, the Examiner has acknowledged (e.g., in the Final Rejection) that Brown does not teach or suggest generating meta data about the mapping. Therefore, the Examiner relies on O'Farrell as providing such teachings. Although O'Farrell does describe mappings between fields on client devices and those of enterprise data sources (O'Farrell, paragraphs [0052]-[0054]), O'Farrell's system requires the users to define the mappings. O'Farrell's system includes a "Studio" component that can be used to assist users in configuring the system (O'Farrell, paragraph [0036]; Fig. 1 at 110, 112, 130). However, O'Farrell's Studio component does not automatically generate the mapping, but rather relies on user input. Thus, neither Brown nor O'Farrell teach or suggest automatically generating proxy tables and associated mapping meta data as specifically provided in the claim limitations of Applicant's amended claims.

In addition to automatically creating proxy tables to represent methods of a Web service, Applicant's solution also provides for using "shadow" tables to provide improved performance. In particular, the use of shadow tables enables Applicant's solution to efficiently handle multiple calls to web services by allowing insert statements and the subsequent use of a SELECT * statement. Applicant's invention allows an insert statement to the proxy table to be stored in the shadow table (see e.g., Applicant's specification, paragraph [0097]). When a subsequent SELECT * statement or a SELECT statement that chooses an output parameter of the web service is executed (see e.g., Applicant's specification, paragraph [0099]), the web service is executed with the parameters stored in the shadow table. The shadow table essentially operates as a cache for the input data required to execute the web service (see e.g., Applicant's specification, paragraph [0098]).

In the case that some of the columns are to be supplied by the remote web service represented by the proxy table, data in the shadow table is used to provide the input parameters for the applicable method of the web service (see e.g., Applicant's specification, paragraph [0099]). Applicant has amended certain of its dependent claims to add these additional distinctive features. For example, Applicant's claim 41 includes the following claim limitations:

> The method of claim 40, wherein said step of generating input arguments includes inserting a row into a shadow table of the database associated with the application in response to a database query including an insert operation on a given database table corresponding to a function of the application.

> (Applicant's amended claim 41)

Other dependent claims (e.g., claims 42 and 43) include claim limitations that the web method (or function) is invoked when a column that is an output parameter is requested and that data held in the shadow table is used for invoking the method (function) when it is invoked. These features provide better performance in that data is cached locally. Also, Applicant's approach avoids the need to invoke the web service when it is not necessary do so. The shadow table can also be used to cache the results of queries so that subsequent queries do not have to invoke the web service, but can instead pull the data from the shadow table.

Neither Brown nor O'Farrell include comparable features. In particular, Applicant's review of the cited references finds no teaching or suggestion of inserting a row into a "shadow" database table. Additionally, Brown and O'Farrell (either individually or in combination) do not include any teaching or suggestion of using the data inserted into the shadow table when the web service represented by the table is subsequently invoked.

As discussed in detail above, Brown and O'Farrell, either alone or in combination, do not include all the limitations of Applicant's amended claims. For the reasons stated, it is respectfully submitted that Applicant's claims 1-55 distinguish over the prior art and overcome any rejection under Section 103.

Any dependent claims not explicitly discussed are believed to be allowable by

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virtue of dependency from Applicant's independent claims, as discussed in detail above.

Conclusion

       In view of the foregoing remark and the amendments to the claims, Applicant respectfully believes that Applicant's claimed invention is distinguishable from the prior art of record and that the claims are now in condition for allowance.

       If for any reason the Examiner feels that a telephone conference would in any way expedite prosecution of the subject application, the Examiner is invited to telephone the undersigned at 925 465 0361.

                                     Respectfully submitted,

Date: May 13, 2010   /G. Mack Riddle/

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